(FILE 'HOME' ENTERED AT 16:52:32 ON 04 APR 2003)

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FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, MEDICONF' ENTERED
     AT 16:52:47 ON 04 APR 2003
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L2
            118 DUP REM L1 (121 DUPLICATES REMOVED)
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             9 S L2 AND CULTUR?
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             47 S (I-SCE? OR I-CSM? OR I-PAN? OR I-CEU? OR I-PPO? OR I-CRE? OR
             22 DUP REM L5 (25 DUPLICATES REMOVED)
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     ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS
     1998:545391 CAPLUS
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     129:172448
ΤI
     Cloning and expression of gene for restriction endonuclease I-SceI of
     Saccharomyces cerevisiae and use of I-SceI
     U.S., 79 pp., Cont.-in-part of U.S. 5,474,896.
     CODEN: USXXAM
     Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-francois
IN
     A mitochondrial gene encoding restriction endonuclease I-
     SceI of Saccharomyces cerevisiae and a synthetic universal code
     encoding I-SceI for the expression in Escherichia coli
     and yeast are provided. Applications of I-SceI for
     genetically mapping yeast chromosomes by the nested chromosomal
     fragmentation strategy, inducing double stranded DNA break, and in vivo
     site-directed insertion of genes and homologous recombination in
     eukaryotes are also described. It may also be used for prepq.
     transgenic animal models of human diseases and genetic disorders.
     PATENT NO. KIND DATE
                                        APPLICATION NO. DATE
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PΙ
    US 5792632
                     Α
                           19980811
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                           19960829
         W: CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                      A1 19970827
                                         EP 1995-938418 19951106
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
    JP 10508478
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                                          US 1998-119024
                                                           19980720
    ANSWER 21 OF 22 CAPLUS COPYRIGHT 2003 ACS
L7
    2002:403935 CAPLUS
DN
    136:396983
TΤ
    Nucleotide sequence encoding yeast restriction endonuclease I-SceI and
    uses in genetic mapping and site-directed gene recombination
SO
    U.S., 84 pp., Cont.-in-part of U.S. 5,792,632.
    CODEN: USXXAM
    Dujon, Bernard; Choulika, Andre; Perrin, Arnaud; Nicolas, Jean-Francois
AB
    The present invention relates to an isolated yeast DNA encoding the
    restriction endonuclease I-SceI, and use of I
     -SceI for mapping eukaryotic genomes and for in vivo site
    directed genetic recombination. Specifically, the invention relates to a
    vector comprising a plasmid, bacteriophage, or cosmid vector contg. the
    DNA sequence of the enzyme I-SceI. The invention also
    relates to E. coli, eukaryotic cells transformed with a vector of the
    invention, transgenic animal with the DNA sequence encoding
    I-SceI. The invention relates to a transgenic
    organism in which at least one restriction site for the enzyme I
    -SceI has been inserted in a chromosome of the organism. The
    invention further relates to methods for gene mapping in yeast chromosome,
    yeast artificial chromosome, and cosmids, and site-directed insertion of
    genes.
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8	178	((group ADJ I ADJ Intron)or (intron ADJ	USPAT;	2003/04/04 16:12
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43	39	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/04/04 16:28
15		I-cre\$2 I-tev\$2) WITH cell	US-PGPUB;	
			EPO; JPO;	
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			USOCR	
57	44	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/04/04 16:48
"		I-cre\$2 I-tev\$2) WITH (eukaryotic	US-PGPUB;	
		mammalian cell)	EPO; JPO;	
		·	DERWENT;	
ŀ			USOCR	
64	15	(I-SCE\$2 I-CSM\$2 I-pan\$2 I-ceu\$2 I-ppo\$2	USPAT;	2003/04/04 16:48
		I-cre\$2 I-tev\$2) WITH mouse	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
1			USOCR	

PATENT NO. KIND DATE APPLICATION NO. DATE 1 US 6395959 B1 20020528 US 1996-643732 19960506 US 5474896 A 19951212 US 1992-971160 19921105 US 5792632 A 19980811 US 1994-336241 19941107 L7 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS AN 1996:428575 CAPLUS DN 125:107019 TI Nucleotide sequence encoding yeast enzyme I-SceI and its use in inducing homologous recombination in eukaryotic cells and protein production in transgenic animals SO PCT Int. Appl., 122 pp. CODEN: PIXXD2 IN CODEN: PIXXD2 IN Choulika, Andre; Perrin, Arnaud; Dujon, Bernard; Nicolas, Jean-Francois Synthetic DNA encoding the enzyme T-SceI is provided. The DNA sequence can be incorporated in cloning and expression vectors, transformed cell lines and transgenic animals. The vectors are useful in gene mapping and site-directed insertion of genes. A synthetic gene encoding Saccharomyces cerevisiae I-SceI restriction endonuclease was expressed in Escherichia coli and yeast. The enzyme was used in genetic mapping of a yeast chromosome, of YAC's, and of cosmids. I-SceI efficiently induced double-stranded breaks in a chromosomal target in mammalian cells and the breaks were repaired using a donor mol. that shares homol. with the regions flanking the break. PATENT NO. KIND DATE APPLICATION NO. DATE PI WO 9614408 A2 19960517 WO 1995-EP4351 19951106 WO 9614408 A3 19960829 W: CA, JP RN: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LIU, MC, NL, PT, SE US 5792632 A 19980825 JP 1995-938418 19951106 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LIU, MC, NL, PT, SE JP 10508478 T2 19980825 JP 1995-515058 19951106 L7 ANSWER 16 OF 22 MEDLINE AND 202491377 IN-PROCESS TI -SceI meganuclease mediates highly efficient transgenesis in fish. MECHANISMS OF DEVELOPMENT, (2002 Oct) 118 (1-2) 91-8. Journal code: 9101218. ISSN: 0925-4773. AU Thermes Violette; Grabher Clemens; Ristoratore Filomena; Bourrat Franck; Choulika Andre; Witbrodt Jochen; Joly Jean-Stephane He widespread use of fish as model systems is still limited by the mosaic distribution of cells transiently expres						
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Nucleotide sequence encoding yeast enzyme I-SceI and its use in inducing homologous recombination in eukaryotic cells and protein production in transgenic animals PCT Int. Appl., 122 pp. CODEN: PIXXD2 IN Choulika, Andre; Perrin, Arnaud; Dujon, Bernard; Nicolas, Jean-Francois Synthetic DNA encoding the enzyme I-SceI is provided. The DNA sequence can be incorporated in cloning and expression vectors, transformed cell lines and transgenic animals. The vectors are useful in gene mapping and site-directed insertion of genes. A synthetic gene encoding Saccharomyces cerevisiae I-SceI restriction endonuclease was expressed in Escherichia coli and yeast. The enzyme was used in genetic mapping of a yeast chromosome, of YAC's, and of cosmids. I-SceI efficiently induced double-stranded breaks in a chromosomal target in mammalian cells and the breaks were repaired using a donor mol. that shares homol. with the regions flanking the break. PATENT NO. KIND DATE APPLICATION NO. DATE PI WO 9614408 A2 19960517 WO 1995-EP4351 19951106 WO 9614408 A3 19960829 W: CA, JP RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE US 5792632 A 19980811 US 1994-336241 19941107 EP 791058 A1 19970827 EP 1995-938418 19951106 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 10508478 T2 19980825 JP 1995-515058 19951106 L7 ANSWER 16 OF 22 MEDLINE AN 2002491377 IN-PROCESS I -SceI meganuclease mediates highly efficient transgenesis in fish. MECHANISMS OF DEVELOPMENT, (2002 Oct) 118 (1-2) 91-8. Journal code: 9101218. ISSN: 0925-4773. AU Thermes Violette; Grabher Clemens; Ristoratore Filomena; Bourrat Franck; Choulika Andre; Wittbrodt Jochen; Joly Jean-Stephane The widespread use of fish as model systems is still limited by the mosaic distribution of cells transiently expressing transgenes leading to a low			LOD			
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requency or transgenic fish. Here we present a strategy that overcomes this problem. Transgenes of interest were flanked by two I-SceI meganuclease recognition sites, and co-injected together with the I-SceI meganuclease enzyme into medaka embryos (Oryzias latipes) at the one-cell stage. First, the promoter dependent expression was strongly enhanced. Already in FO, 76% of the embryos exhibited uniform promoter dependent expression compared to 26% when injections were performed without meganuclease. Second, the transgenesis frequency was raised to 30.5%. Even more striking was the increase in the germline transmission rate. Whereas in standard protocols it does not exceed a few percent, the number of transgenic F1 offspring of an identified founder fish reached the optimum of 50% in most lines resulting from meganuclease co-injection. Southern blot analysis showed that the individual integration loci contain only one or few copies of the transgene in tandem. At a lower rate this method also leads to enhancer trapping effects, novel patterns that are likely due to the integration of the transgene in the vicinity of enhancer elements. Meganuclease co-injection thus provides a simple and highly efficient tool to improve transgenesis by microinjection.

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